

WHAT IS CLAIMED IS:

1. A method for manufacturing a high strength hot rolled steel sheet, comprising the steps of:

producing a steel slab which consists essentially of 0.06 % or less C, 0.5 % or less Si, 0.5 to 2.0 % Mn, 0.06 % or less P, 0.005 % or less S, 0.1 % or less Al, 0.006 % or less N, 0.05 to 0.6 % Mo, 0.02 to 0.10 % Ti by weight percentage, and the balance being Fe, and satisfies the equation of $0.8 \leq (C/12)/[(Ti/48) + (Mo/96)] \leq 1.3$;

producing a hot rolled steel sheet by hot rolling said steel slab at a temperature of Ar3 transformation point or higher; and

coiling said hot rolled steel sheet at a temperature of 550 to 700 °C.

2. A method for manufacturing a high strength hot rolled steel sheet, comprising the steps of:

producing a steel slab which consists essentially of 0.06 % or less C, 0.5 % or less Si, 0.5 to 2.0 % Mn, 0.06 % or less P, 0.005 % or less S, 0.1 % or less Al, 0.006 % or less N, 0.05 to 0.6 % Mo, 0.02 to 0.10 % Ti, at least one element selected from 0.08 % or less Nb and 0.15 % or less V by weight percentage, and the balance being Fe;

producing a hot rolled steel sheet by hot rolling said steel slab at a temperature of Ar3 transformation point or higher; and

coiling said hot rolled steel sheet at a temperature of 550 to 700 °C.

3. A method for manufacturing a high strength hot rolled steel sheet, comprising the steps of:

producing a steel slab which consists essentially of more than 0.06 % and 0.15 % or less C, 0.5 % or less Si, 0.5 to 2.0 % Mn, 0.06 % or less P, 0.005 % or less S, 0.1 % or less Al, 0.006 % or less N, more than 0.10 % and 0.35 % or less Ti, 0.3 to 0.7 % Mo by weight percentage, and the balance being Fe, and satisfies the equation of $0.8 \leq (C/12)/[(Ti/48) + (Mo/96)] \leq 1.3$;

producing a hot rolled steel sheet by hot rolling said steel slab at a temperature of Ar3 transformation point or higher; and

coiling said hot rolled steel sheet at a temperature of 550 to 700 °C.